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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/586,397	01/10/2007	Takatoshi Seto	293774US0PCT	2538
22850	7590	03/11/2009		
OBLON, SPIVAK, MCCLELLAND MAIER & NEUSTADT, P.C. 1940 DUKE STREET ALEXANDRIA, VA 22314			EXAMINER KOSLOW, CAROL M	
			ART UNIT 1793	PAPER NUMBER
			NOTIFICATION DATE 03/11/2009	DELIVERY MODE ELECTRONIC

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Notice of the Office communication was sent electronically on above-indicated "Notification Date" to the following e-mail address(es):

patentdocket@oblon.com
oblonpat@oblon.com
jgardner@oblon.com

Office Action Summary	Application No. 10/586,397	Applicant(s) SETO ET AL.	
	Examiner C. Melissa Koslow	Art Unit 1793	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 29 January 2009.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-27 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☒ Claim(s) 1,2,4-6 and 8-27 is/are allowed.
- 6) ☒ Claim(s) 3 and 7 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 29 January 2009 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

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This action is in response to the amendment of 21 January 2009. The drawings were received on 21 January 2009. These drawings are acceptable. The amendments to the specification have overcome the objection to the disclosure with respect to it failing to provide proper antecedent basis for the subject matter of claims 5-7. The amendments to the claims have overcome the objection to the disclosure with respect to it failing to provided proper antecedent basis for the subject matter of claims 2 and 4 with respect to the values of $a_0+b_0+c_0+d_0$, e_0+f_0 and e_2+f_2 , the objection over claims 5-7 and the art rejections over claims 1, 2, 5, 6, 8-11 and 14-17. Applicants have pointed out where the specification antecedent basis is provided for the claimed value of b_0 and the amount of at least one of Ba, Ca and Sr in claim 2. Thus the objection to the specification with respect to failing to provide proper antecedent basis for this claimed subject matter is withdrawn. Applicant's arguments with respect to the remaining objection to the disclosure, the 35 USC 112 rejection and the art rejection over claim 7 have been fully considered but they are not persuasive.

The status modifier for claim 3 in the amendment is "Previously Presented". Applicants state in the amendment that claim 3 has been canceled. The status modifier determines the status of the claims. Thus claim 3 is not considered canceled but still pending.

WO 03/069688, cited in the information disclosure statement of 12 February 2009, has been considered with respect to the provided English abstract. CN 1194292, cited in the information disclosure statement of 12 February 2009, has been considered with respect to explanation of this reference given in the provided and translated Chinese Patent Office First Office Action.

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The specification is objected to as failing to provide proper antecedent basis for the claimed subject matter. See 37 CFR 1.75(d)(1) and MPEP § 608.01(o). Correction of the following is required:

The lower limit of "a" of claim 3 is not found in the specification. The specification teaches for formula 2, the lower limit is 0.001, 0.005 and 0.02. The claim range of b in claim 3 is not found in the specification. The taught ranges of b for formula 2 are $0 < b \leq 0.15$, 0.01-0.15, 0.03-0.8 and 0.06-0.4.

These objections are maintained since claim 3 is still pending.

The disclosure is objected to because of the following informalities:

On pages 2, 4 and 37, "alkali earth" should be changed to "alkaline earth".

Appropriate correction is required.

Claim 7 is objected to because of the following informalities: "alkali earth" should be changed to "alkaline earth". Appropriate correction is required.

Claim 3 is rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

This claim defines the amount of d1 as 0-0.2 which means the amount of c1 is 0.8-1. Claim 1, from which claim 3 depends teaches the amount of c1 as 0-0.2 which means the amount of d1 is 0.8-1. Thus the amount of d1 claimed in claim 3 is outside the amount claimed in claim 1. Therefore claim 3 is indefinite.

This rejection is maintained since claim 3 is still pending.

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The text of those sections of Title 35, U.S. Code not included in this action can be found in a prior Office action.

Claim 7 is rejected under 35 U.S.C. 103(a) as being unpatentable over U.S. patent 6,982,045.

This reference teaches a phosphor having the formula $M_2SiO_4:Eu,Mn$, where M is at least one of Sr, Ba and Ca. the amount of Eu is about 0.0001-5 mol% (0.00001-0.05) and the amount of Mn is about 0.0001-5 mol% (0.000001-0.05) . The taught alkaline earth silicate host falls within claimed formula 1 and the amounts of europium and manganese overlap the claimed ranges. Product claims with numerical ranges which overlap prior art ranges were held to have been obvious under 35 USC 103. *In re Wertheim* 191 USPQ 90 (CCPA 1976); *In re Malagari* 182 USPQ 549 (CCPA 1974); *In re Fields* 134 USPQ 242 (CCPA 1962); *In re Nehrenberg* 126 USPQ 383 (CCPA 1960). Also see MPEP 2144.05. Since the host crystal falls within that claimed and the amounts of Eu and Mn overlap the claimed ranges, one expect the taught phosphor to have an X-ray diffraction pattern that falls within that claimed when the taught amount of Eu is between 0.1 and 5 mol% (0.001-0.05) and the amount of manganese is 0.0001-5 mol% (0.000001-0.05), absent any showing to the contrary. The reference suggests the claimed phosphor.

The insertion of the subject matter of claims 12 and 13 into claim 1 does not overcome the rejection over independent claim 7. Applicants did not address the rejection with respect to claim 7. The rejection is maintained.

Claims 1, 2, 4-6 and 8-27 are allowable over the cited prior art.

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Claim 3 would be allowable if rewritten or amended to overcome the rejection(s) under 35 U.S.C. 112, 2nd paragraph, set forth in this Office action.

Claims 1, 2, 4-6 and 8-27 include the limitations of originally filed claims 12 and 13 and thus the claims are allowable for the reasons given in the previous action for the allowability of originally filed claims 12 and 13. Claim 3 would be allowable for the reasons given in the previous action.

THIS ACTION IS MADE FINAL. Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Melissa Koslow whose telephone number is (571) 272-1371. The examiner can normally be reached on Monday-Friday from 8:00 AM to 3:30 PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Jerry Lorengo, can be reached at (571) 272-1233.

The fax number for all official communications is (571) 273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished

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applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/cmk/
March 9, 2009

/C. Melissa Koslow/
Primary Examiner
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